

Australian Standard[®]

Food microbiology

Method 9: Examination for specific organisms— Coliforms and *Escherichia coli* by the triplicate tube detection method

PREFACE

This Standard was prepared by the Standards Australia Committee FT-024, Food Products and Subcommittee FT-024-01, Food Microbiology (Constituted) to supersede, in part, AS 1766.2.3—1992, *Food microbiology*, Method 2.3: *Examination for specific organisms—Coliforms and Escherichia coli*.

The International Organization for Standardization (ISO) coliform and *E. coli* methods adopted as Australian Standards contain a series of procedures for the enumeration of these bacteria. There is no ISO qualitative procedure equivalent to the existing triplicate tube method in AS 1766.2.3 and this procedure is retained as an Australian Standard for use in food analyses.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

METHOD

1 SCOPE

This Standard sets out procedures for the examination of foods for coliforms and *Escherichia coli* by the triplicate tube method. This is a qualitative test and is suitable for determining the presence or absence of coliforms and *E. coli* in a stated quantity of material under test.

NOTES:

- 1 A flow diagram of the procedures is shown in Appendix A.
- 2 The method describes a general method and modifications may be required according to the material under test. Such modifications, if required, are prescribed in the method dealing with particular products.
- 3 Where the test is to estimate the level of coliforms only as an index of potential spoilage of the product and of hygiene, an incubation temperature of 30°C is specified. However, where the test is to be extended to include the estimation or detection of *E. coli*, incubation at 37°C is specified. Cultures which have been incubated initially at 30°C cannot be used for further tests for *E. coli*.
- 4 Methods for the examination of rinse fluids and filterable liquid products for coliforms and *E. coli* by membrane filtration are given in AS 5013.
- 5 Quantitative coliform and *E. coli* methods are given in AS 5013.3 and AS 5013.15 respectively.